



EV 032 197 091

PATENT

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## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of : Steven T. Perri et al.  
Serial No. : 10/036,912  
Filing Date : December 21, 2001  
Title : (IMPROVED) PROCESS FOR PRODUCING  
ASCORBIC ACID  
Examiner : Unassigned  
Group Art Unit : 1625

Assistant Commissioner of Patents  
Washington, DC 20231

Sir:

**INFORMATION DISCLOSURE STATEMENT**

Pursuant to 37 C.F.R. §§ 1.56, 1.97, and 1.98, Applicants submit herewith on Form PTO-1449 a listing of documents known to the Applicants and/or their attorney. Applicants respectfully request consideration of the cited documents and making the same of record in the prosecution of the above-identified application. In so doing, Applicants do not waive any rights to appropriate action to establish patentability over any of the listed documents should they be applied as references against the claims of the present application, or to establish that such references are not prior art. Copies of the documents are enclosed.

References listed herein include one German article, German language patent documents, and one Japanese patent.

One of the attached references, Reichstein, T.; *Helv. Chim. Acta.*; 17, pp. 311-328, 1934 (Reichstein, 1934), is in German with no English translation readily available. Reichstein (1934) appears to describe experimental details of the five steps involved in converting glucose to ascorbic acid. The experiments are detailed for each step with yields provided. Overall yield of ascorbic acid from glucose is reported to be about 50%. This disclosure was later reported as patent BP 428,815 (in English).

DE 38 43 389 A1 appears to describe a process for the production of ascorbic acid in which 2-keto-gulonic acid derivatives are allowed to react in the presence of zeolites as catalysts. A English translation of DE 38 43 389 A1 is provided.

Based on the English language version of the abstract, DE 197 34 086 C1 and WO 99/07691 (German) appear to describe a process for preparing L-ascorbic acid by reaction of

2-keto-L-gulonic acid with concentrated mineral acid at temperatures of between 40 and 80°C. A full English language translation of WO 99/07691 is not readily available. An English translation of German patent DE 197 34 086 C1, corresponding to WO 99/07691 is provided.

Based on the English language version of the abstract, WO 00/46216 (German) appears to describe a method for producing L-ascorbic acid from 2-keto-L-gulonic acid or 2,3-4,6-diacetone-2-keto-L-gulonic acid. The reaction is carried out in the presence of water and hydrogen halide and the concentration of the hydrogen halide in water is greater than 37% by weight. A full English language translation of WO 00/46216 is not readily available.

Based on the English language version of the abstract, JP 73015931 (JP 4815931) appears to describe a process for reacting diacetone-2-keto-L-gulonic acid hydrate, 2-ketogulonic acid hydrate, or 2-keto-L-gulonic acid hydrate with a mineral acid in an inert solvent containing a surfactant to obtain L-ascorbic acid. Reaction is complete within 4-6 hours and the yield is almost quantitative. Surfactant is of relevance when using an inert organic solvent. A full English language translation of JP 73015931 is not readily available.

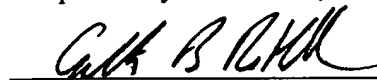
This statement should not be construed as a representation that more material information does not exist or that a search of the relevant art has been made.

It is respectfully requested that the references listed on the attached form PTO-1449 be expressly considered by the Examiner, made of record in the application, and appear among the "References Cited" on any patent to issue therefrom.

This Information Disclosure Statement is being submitted prior to the mailing of a first action on the merits in the present application. Accordingly, it is believed that no fees are due for consideration of this Information Disclosure Statement. However, should any fees be due, the Assistant Commissioner is authorized to charge such fees to Deposit Account 16-1435. A duplicate of this sheet is attached for that purpose.

Date: 5/3/02

Respectfully submitted,



Cynthia B. Rothschild

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**Attorney Docket No.: 32887-268168**  
(E-71511)

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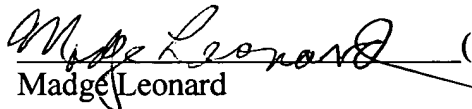


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"Express Mail" Label No. : EV 032 197 091 US  
Date of Deposit : May 3, 2002  
Serial No. : 10/036,912  
Applicant(s) : Steven T. Perri et al.  
Filing Date : December 21, 2001  
Title: : (IMPROVED) PROCESS FOR PRODUCING  
ASCORBIC ACID  
Examiner : Unassigned  
Group Art Unit : 1625  
Type of Document(s) : Transmittal Form  
Information Disclosure Statement (in duplicate)  
Form PTO/SB/08A  
References: 28  
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<b>TRANSMITTAL FORM</b> <i>(to be used for all correspondence after initial filing)</i>		Application Number	10/036,912
		Filing Date	December 21, 2001
		First Named Inventor	Steven T. Perri
		Group Art Unit	1625
		Examiner Name	Unassigned
Total Number of Items in This Submission (including Transmittal Form)	33	Attorney Docket Number	32887-268168 (E-71511)
<b>ENCLOSURES (check all that apply)</b>			
<input type="checkbox"/> Fee Transmittal Form <input type="checkbox"/> Fee Attached <input type="checkbox"/> Amendment / Response <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s) <input type="checkbox"/> Extension of Time Request <input type="checkbox"/> Express Abandonment Request <input checked="" type="checkbox"/> Information Disclosure Statement (in duplicate) <input type="checkbox"/> Certified Copy of Priority Document(s) <input type="checkbox"/> Response to Missing Parts/ Incomplete Application <input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Assignment Papers (for an Application) <input type="checkbox"/> Drawing(s) <input type="checkbox"/> Licensing-related Papers <input type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Request for Refund <input type="checkbox"/> CD, Number of CD(s) _____	<input type="checkbox"/> After Allowance Communication to Group <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input type="checkbox"/> Appeal Communication to Group (Appeal Notice, Brief, Reply Brief) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input checked="" type="checkbox"/> Other Enclosure(s) (please identify below): Express Mail Certificate - EV 032 197 091 US Form PTO/SB/08A References: 28 Return Postcard	Remarks
<b>SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT</b>			
Firm or Individual name	Cynthia B. Rothschild, Esq. Reg. No. 47,040		
Signature			
Date	5/13/02		
<b>CERTIFICATE OF MAILING</b>			
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